

Product Name: MitoTracker Green

Catalog No.: RA20021



Basic Information

Product name	MitoTracker Green
Size	50 µg/20 x 50 µg
Storage	-20°C, keep away from light
Shipping	Shipped with ice pack
Validity	12 months

Product Introduction

MitoTracker Green (mitochondrial green fluorescent probe) is a mitochondrial green fluorescent dye that can stain and mark mitochondria at the nanomolar level. The dye has plasma membrane permeability and accumulates on the mitochondrial membrane to show bright fluorescence. The localization of the dye in mitochondria is independent of the mitochondrial membrane potential. The signal-to-noise ratio of stained fixed cells is not ideal. After cell fixation and permeabilization, the fluorescent signal will be weakened or lost, so we recommend that it is only used to stain live cells.

Reagent Preparation

Preparation of stock solution

Prepare 200 µM MitoTracker Green stock solution: Take a 50 µg tube of MitoTracker Green dye, add 372 µL of anhydrous DMSO or DMF, and vortex to mix thoroughly. This stock solution is stable at -20°C for 6 months.

The optimal dye concentration and incubation time vary with cell types. We recommend a working concentration of 20-200 nM for MitoTracker Green. It is easy to stain other cell structures.

Operation Steps

Adherent and suspension cell staining

1. When the cultured cells reach an appropriate density, discard the old culture medium and add Pre-warmed culture medium containing an appropriate concentration of MitoTracker Green. For suspension cells, centrifuge first, discard the supernatant, and resuspend the cells in new culture medium containing an appropriate concentration of MitoTracker Green.

Note: The medium containing serum cannot be used to dilute the dye, because the dye will be affected by the oxidase in the serum. We recommend using PBS or basic culture medium to dilute.

2. Incubate at 37°C for 15-45 min.

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3. Discard the medium containing MitoTracker Green and add new medium or PBS to the culture dish (to suspend cells, centrifuge first and discard the upper layer. After clearing the solution, resuspend the cells in new culture medium or PBS).
 4. Detect using fluorescence microscopy, flow cytometer or fluorescence microplate reader.

MitoTracker Green excitation/emission wavelength: 490/523nm

Note

1. All fluorescent dyes have quenching problems. Please try to avoid light to slow down fluorescence quenching.
2. To avoid repeated freezing and thawing, this product can be divided into small quantities.
3. This product is For Research Use Only, Not for Diagnostic Use